2. EXISTING CONDITIONS

This chapter provides a description of existing conditions within the City of Fremont relevant to this Bicycle Master Plan. Information is based on field visits, existing planning documents, maps, and conversations with City of Fremont, Alameda County and other agency staff.

2.1. SETTING

2.1.1. Location

The City of Fremont is situated on the eastern shore of the San Francisco Bay, in the southern part of Alameda County just north of Santa Clara County. Fremont encompasses about 92 square miles of land, and is bordered on the north by the cities of Union City and Hayward, on the south by the city of Milpitas, and on the east by unincorporated Alameda County lands. The city of Newark is located to the west of Fremont's urbanized area, and is completely surrounded by the city of Fremont incorporated area. Fremont's city limits extend to the San Francisco Bay, approximately halfway across the Dumbarton Bridge, and include the shoreline areas of the Don Edwards San Francisco Bay National Wildlife Refuge. With a population of approximately 208,000 Fremont is the fourth most populous city in the Bay Area, and is the fifth largest city in California in area. The topography of Fremont varies, from the low bayfront hills of Coyote Hills park, to the relatively flat urbanized core of the city between I-880 and Mission Boulevard, rising east to Mission Peak.

2.1.2. Land Uses

Fremont has a relatively dispersed development pattern, and planning for the bicycle network must take into account the fact that people live everywhere within the urbanized area of Fremont, that employment, shopping and recreational destinations are located throughout the city (or outside of Fremont), and that bicycle facilities need to provide access to and from all areas of the city. This section discusses Fremont's major community and business districts and recreational destinations, in order help identify some of the major destinations and attractors for bicycle trips.

2.1.2.1. Community Districts

Fremont is comprised of five major community districts – Centerville, Irvington, Mission San Jose, Niles, and Warm Springs – that were separate towns until 1956 when they joined to form the incorporated City of Fremont. These historic town districts, along with the newer business districts of Baylands, Ardenwood, and the Central Business District, form the modern city of Fremont.

Centerville is centrally located around the intersection of Fremont Boulevard and Thornton Avenue. The district has a traditional downtown commercial area along Fremont Boulevard that supports a variety of retail shops and restaurants. The area

is bound on the west by Interstate 880. The historic Centerville Depot train station serves the Amtrak Capital Corridor and Altamont Commuter Express trains, linking Fremont to San Jose in the south, Oakland and Sacramento in the north, and the Tri-Valley area and Stockton in the east.

Irvington is centered around the "Five Corners" area where Washington and Fremont Boulevards converge, and is a central activity area in Fremont. This area is one of the larger, older, and more historic sections of Fremont. Although the Five Corners area of Irvington includes a number of pedestrian scale building design features, much of the area stretching north along Fremont Boulevard is comprised of auto-oriented retail shopping centers. An Irvington BART station is currently being planned near Washington Boulevard as part of the Warm Springs extension.

Niles, located in the northeastern corner of Fremont, is a center for specialty retail, antique stores, and dining. The historic district is situated between Alameda Creek and the rolling hills, just off of Mission Boulevard and Niles Canyon Road. Niles is centered around a traditional downtown main street, with over eighty businesses. In 1996, the State of California Main Street Program chose Niles as an official Main Street Community.

Warm Springs, located in the southeastern part of Fremont, is home to hundreds of Fremont's high-tech firms in the industry clusters of software, hardware, telecommunications, semiconductors, and biotechnology. Warm Springs will also be home to a new BART station, located at Osgood Road and Grimmer Boulevard, part of the BART extension from downtown Fremont into Santa Clara County.

The Mission San Jose district, located in the foothills in southeastern Fremont below Mission Peak, is home to the Mission San Jose which was established in 1797. This historic district also includes Ohlone College, the Olive Hyde Art Gallery, and the Gary Soren Smith Center for the Fine and Performing Arts. The Mission San Jose district is accessible by Driscoll Road and Mission Boulevard.

2.1.2.2. Parks and Recreation Areas

The Fremont Recreation Department oversees a variety of neighborhood and community parks, playgrounds, community centers, historical sites, and other recreational areas in Fremont. These facilities include over two hundred fifty picnic areas, thirty six tennis courts and over forty sport fields. The largest city-operated park is Central Park, located in central Fremont at Stevenson Boulevard and Paseo Padre Parkway, comprised of 450 acres of land including the 83-acre Lake Elizabeth. In addition to its size, the park's prominent elements include its six softball fields, a driving range, a skate park, a dog park, eighteen tennis courts, four picnic sites, ten soccer fields, and boat amenities.

Regional Parks in Fremont include Coyote Hills Regional Park, located in western Fremont near the bayfront, and Mission Peak Regional Preserve, located in the eastern hills of Fremont. The Quarry Lakes Regional Recreation Area in northern Fremont includes several lakes that offer opportunities to picnic, boat, hike, view wildlife, swim and fish.

The Don Edwards San Francisco Bay National Wildlife Refuge consists of several sites covering over 25,000 acres in the South Bay, from southwestern Fremont to Redwood City. The refuge consists of ponds, sloughs and marshes and is home to a wide array of wildlife. The building that serves as the headquarters and visitor center for the Refuge is located west of Newark and south of Highway 84 and is bound on the east by Thorton Avenue.

The Alameda Creek Regional Trail is a major multi-use trail that extends through northern Fremont along Alameda Creek from Niles Canyon west to the San Francisco Bay. Segments of the San Francisco Bay Trail extend through Fremont within the Don Edwards National Wildlife Refuge and Coyote Hills Regional Park.

2.2. AFFECTED JURISDICTIONS AND AGENCIES

Implementation of the Bicycle Master Plan will require cooperation from numerous jurisdictions and agencies that share policy decisions within areas in and immediately adjacent to Fremont. These include the following:

2.2.1. City of Newark

The City of Newark is located on the southeast edge of the San Francisco Bay and is surrounded entirely by the City of Fremont. The area of Newark is approximately thirteen square miles. Just over 43,000 people reside in Newark. The city of Newark has not adopted its own bicycle plan. The city instead follows the guidelines set forth by Alameda County and the Metropolitan Transportation Commission.

2.2.2. City of Union City

The City of Union City is situated north of Fremont across the Alameda Flood Control Channel. With a population of just over 70,000 in 18 square miles, the city has an ethnically diverse community and a variety of housing types. The City is currently developing a bicycle and pedestrian master plan.

2.2.3. City of Milpitas

The City of Milpitas borders Fremont directly to the south. An extension of BART from Fremont into Milpitas, with a major multi-modal station, is in the planning stages. The City of Milpitas follows a citywide bicycle master plan adopted in 2002. The city has a Bicycle Transportation Advisory Commission that advises the City Council on modification and expansion of the City of Milpitas bikeway system.

2.2.4. Alameda County

The City of Fremont is located in the southern portion of Alameda County. Alameda County has a population of over 1.4 million people and covers 738 square miles of land. The Alameda Countywide Bicycle Plan, produced in July 2001, incorporates input from local, regional, state and federal agencies. It sets out to increase the potential for bicycle transportation by integrating it into the existing Alameda County transportation system. The plan provides a framework for the

background direction and tools to guide the development of bicycles routes, facilities, and the environment within Alameda County. It also serves as a guide for inter-jurisdictional coordination in the planning of bike facilities that either cross boundaries or affect more than one city or planning agency.

2.2.5. Santa Clara County

Fremont borders the northern boundary of Santa Clara County. The county, often referred to as "Silicon Valley," is a major employment center for the region, providing more than a quarter of all jobs in the Bay Area. The Santa Clara Countywide Bicycle Plan, adopted in 2000, identified projects throughout the county that serve as important linkages to existing bike routes within and around the county.

2.2.6. East Bay Regional Park District

The East Bay Regional Park District (EBRPD) manages sixty five regional parks, recreation areas, wilderness, shorelines, preserves and land bank areas. They are responsible for overseeing twenty nine regional inter-park trails. Approximately ninety percent of the district's land is operated and protected as natural parkland. Within Fremont there are a number of major EBRPD-managed park facilities include Quarry Lakes Regional Park, Coyote Hills Regional Park, Mission Peak Regional Preserve, Ardenwood Historic Farm, and the Alameda Creek Regional Trail.

2.2.7. California Department of Transportation

The California Department of Transportation (Caltrans) has jurisdiction over the state and federal highway system in California. Highways within Fremont under Caltrans jurisdiction include Interstate 880 (I-880), Interstate 680 (I-680), State Route 238 (SR-238), State Route 262 (SR-262), and State Route 84 (SR-84). I-880 is the major north-south freeway along the East Bay, connecting San Jose with Oakland. I-680 connects San Jose northeast to the Tri-Valley communities of San Ramon and continues north to Interstate 80 in Fairfield. SR-238 is the designation of Mission Boulevard from I-680 (northern exit) north into Union City and continuing to Hayward. SR-262 is a short (approximately one-mile) segment of Mission Boulevard connecting I-680 (southern exit) to I-880. SR-84 is an east-west route that enters Fremont on Niles Canyon Road, continuing on Mowry Avenue, Peralta Boulevard, Thornton Avenue, a segment of I-880, and then west as an access-controlled freeway over the Dumbarton Bridge into Menlo Park on the west side of the Bay. Of these highways, only Interstate 880, Interstate 680 and State Route 84 west of I-880 prohibit bicycle access.

2.2.8. Alameda County Congestion Management Agency

The Alameda County Congestion Management Agency (CMA) was created in 1991 by the passage of Proposition 111 which provides gasoline tax funding for congestion management. The CMA is a joint powers agency responsible for transportation planning, funding, and other congestion management activities. Alameda County, all of its cities, and various transportation and air quality authorities sit on the CMA board.

2.2.9. Alameda County Transportation Improvement Authority

The Alameda County Transportation Improvement Authority (ACTIA) is funded by Alameda County Measure B, providing sales tax funding for transportation improvements. ACTIA is intended to implement the voter-mandated Measure B Transportation Improvement Program.

2.2.10. Local Schools

2.2.10.1. Primary and Secondary Schools

The Fremont Unified School District oversees the entire Fremont elementary, junior high, and high school system. The District includes 30 elementary schools, five junior high schools, five comprehensive high schools, and a continuation high school. The District serves a student population of around 31,000.

A number of private schools are also located in Fremont. **Table 2-1** lists all the public and private elementary, middle schools, and high schools located in Fremont.

2.2.10.2. Colleges and Adult Schools

Several types of colleges and adult schools are located in Fremont. Ohlone College, a public, two year community college with an average enrollment of 10,500 students per semester, is located on Mission Boulevard near Washington Boulevard. Other adult educational institutions in Fremont include the Fremont Adult School, the DeVry Institute of Technology, Silicon Valley College, Northwestern Polytechnic University, the California School for the Deaf and the California School for the Blind.

Table 2-1
Elementary, Middle, and High Schools, Colleges, and Adult Schools in Fremont

School Name	Grades	Address
Ardenwood Elementary School	K-6	33955 Emilia Lane
Azevada Elementary School	K-6	39450 Royal Palm Drive
Blacow Elementary School	K-6	40404 Sundale Drive
Brier Elementary School	K-6	39201 Sundale Drive
Brookvale Elementary School	K-6	3400 Nicolet Avenue
Cabrillo Elementary School	K-6	36700 San Pedro Drive
Chadbourne Elementary School	K-6	801 Plymouth Avenue
Durham Elementary School	K-6	40292 Leslie Street
Forest Park Elementary School	K-6	34400 Maybird Circle
Glankler Elementary School	K-6	39207 Sundale Drive
Glenmoor Elementary School	K-6	4620 Mattos Drive
Gomes Elementary School	K-6	555 Lemos Lane
Green Elementary School	K-6	42875 Gatewood Street
Grimmer Elementary School	K-6	43030 Newport Drive
Hirsch Elementary School	K-6	41399 Chapel Way
Leitch Elementary School	K-6	47100 Fernald Street
Maloney Elementary School	K-6	38700 Logan Drive
Mattos Elementary School	K-6	37944 Farwell Drive
Millard Elementary School	K-6	5200 Valpey Park Drive
Mission San Jose Elementary	K-6	43545 Bryant Street
Mission Valley Elementary School	K-6	41700 Denise Street
Niles Elementary School	K-6	37141 Second Street
Oliveira Elementary School	K-6	4180 Alder Avenue
Parkmont Elementary School	K-6	2601 Parkside Drive
Patterson Elementary School	K-6	35521 Cabrillo Drive
Vallejo Mill Elementary School	K-6	38569 Canyon Heights Drive
Warm Springs Elementary School	K-6	47370 Warm Springs Boulevard
Warwick Elementary School	K-6	3375 Warwick Road
Weibel Elementary School	K-6	45135 South Grimmer Boulevard
Betel Christian Academy-Baptist	K-12	36060 Fremont Boulevard
Cabrini Academy	K-12	40711 Penn Lane
Fremont Christian School	K-12	4760 Thornton Avenue
Hope Academy	K-12	3779 Franklin Street
Christian Community	K-8	39700 Mission Boulevard
Holy Spirit Elementary School	K-8	3930 Parish Avenue
Mission Hills Christian School	K-8	225 Driscoll
New Horizons School	K-8	2550 Peralta Boulevard
Our Lady of Guadalupe Elementary	K-8	3635 St. Leonard's Way
Prince of Peace Lutheran	K-8	38451 Fremont Boulevard
Montessori School of Fremont	K-5	155 Washington Boulevard
Dominican Kindergarten	K	43326 Mission Boulevard
Happy Bear Forest School	K	39600 Mission Boulevard
St. Joseph Elementary School	1-8	43222 Mission Boulevard
Centerville Junior High School	7-8	37720 Fremont Boulevard
Hopkins Junior High School	7-8	600 Driscoll Road
Horner Junior High School	7-8	41365 Chapel Way
Thornton Junior High School	7-8	4357 Thornton Avenue
Walter Junior High School	7-8	39600 Logan Drive

School Name	Grades	Address
American High School	9-12	36300 Fremont Boulevard
Irvington High School	9-12	41800 Blacow Road
Kennedy High School	9-12	39999 Blacow Road
Mission San Jose High School	9-12	41717 Palm Avenue
Robertson High School	9-12	4455 Seneca Park Avenue
Washington High School	9-12	38442 Fremont Boulevard
Ohlone College	N/A	43600 Mission Boulevard
Northwestern Polytechnic University	N/A	117 Fourier Avenue
DeVry Institute of Technology	N/A	6600 Dumbarton Circle
Silicon Valley College	N/A	41350 Christy Street
Fremont Adult School	N/A	4700 Calaveras Avenue
Noll Adult School	N/A	39600 Sundale Drive
Regional Occupational Program	N/A	40230 Laiolo Drive
California School for the Deaf, Fremont	N/A	39350 Fallaudet Drive
California School for the Blind, Fremont	N/A	500 Walnut Avenue
Circle of Independent Learning	N/A	4700 Calaveras Avenue
Teen Parent/CAL-Safe	N/A	4455 Seneca Park Avenue
Vista Alternative	N/A	4455 Seneca Park Avenue

2.3. EXISTING BICYCLE FACILITIES

2.3.1. Definition of Bikeways

The three types of bikeways identified by Caltrans in Chapter 1000 of the Highway Design Manual are as follows. Detailed design guidelines for all three types of bikeways are provided in Appendix A.

Class I Bikeway Typically called a "bike path," a Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.

Class II Bikeway. Often referred to as a "bike lane," a Class II bikeway provides a striped and stenciled lane for one-way travel on a street or highway.

Class III Bikeway. Generally referred to as a "bike route," a Class III bikeway provides for shared use with motor vehicle traffic and is identified only by signing.

It is important to note that bicycles are permitted on *all* roads in Fremont (with the exception of access-controlled freeways such as I-880). As such, Fremont's entire street network is effectively the city's bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The designation of certain roads as Class II or III bicycle facilities is not intended to imply that these are the only roadways intended for bicycle use, or that bicyclists should not be riding on other streets. Rather, the designation of a network of Class II and III on-street bikeways recognizes that certain roadways are optimal bicycle routes, for reasons

such as directness or access to significant destinations, and allows the City of Fremont to then focus resources on building out this primary network.

One of the greatest divergences of opinion lies between those who feel paved Class I bike paths, separated from roadways, should be constructed wherever physically possible, versus those who feel more comfortable riding on streets on lanes or routes. This preference is usually based on personal feeling regarding comfort and safety. In general, Class I bike paths are desirable for recreational uses, particularly by families and children. Class I bike paths are preferred for corridors where there are few intersections or crossings, to reduce the potential for conflicts with motor vehicles. Due to their linear off-street nature, opportunities for developing Class I facilities are typically much more limited, often occurring along waterways, rail corridors, or utility corridors. As such, Class I bike paths will normally comprise a much smaller fraction of the total designated bikeway network than on-street bike lanes and routes.

There are also people who strongly believe the Class II bike lanes are effective, and preferable to providing wide outside travel lanes for shared use. This Bicycle Plan takes the approach that if properly designed, Class II bike lanes can increase safety and promote proper riding, and are therefore highly desirable for bicycle commute routes along major roadways. Bike lanes help to define the road space for bicyclists and motorists, reduce the chance that motorists will stray into the cyclists' path, discourage bicyclists from riding on the sidewalk, and remind motorists that cyclists have a right to the road. Bicyclists have stated their preference for marked on-street bicycle lanes in numerous surveys. The fact is that many bicyclists – particularly less experienced riders – are far more comfortable riding on a busy street if it has a striped and signed bike lane. Part of the goal of this Plan is to encourage new riders, and providing properly designed, marked facilities such as bike lanes is one way of helping to persuade residents to give bicycling a try.

On streets with low traffic volumes and speeds (under 5,000 vehicles per day, 30 mph), striped bike lanes may not be needed at all. This is based on the potential for serious conflicts being so low that the cost of installing bike lanes is not warranted. On these types of low-traffic neighborhood streets, designated and signed Class III bike routes can serve as important connectors to schools and recreational areas such as parks. Class III bike routes may also be desirable on certain commute routes where installing bike lanes is not possible, provided that appropriate signage is installed to alert motorists to the presence of bicycles on the roadway.

Fremont's existing network of designated bikeways is shown in **Figures 2-1 through 2-4**. The network consists of both on- and off-street facilities. **Tables 2-2** thru **2-5** show the limits and lengths of all existing Class I, II, and III bikeway segments in the city. **Figure 2-5** illustrates unpaved bicycle paths within the City that are shown on the City's General Plan Bicycle Facilities, Foot and Horse Trails map. Although unpaved bike paths are not considered to be formal bicycle transportation corridors because they do not meet Class I standards, they are an important part of Fremont's overall bicycle network as recreational facilities.

Figure 2-1: Fremont Existing Bicycle Network - Index Sheet

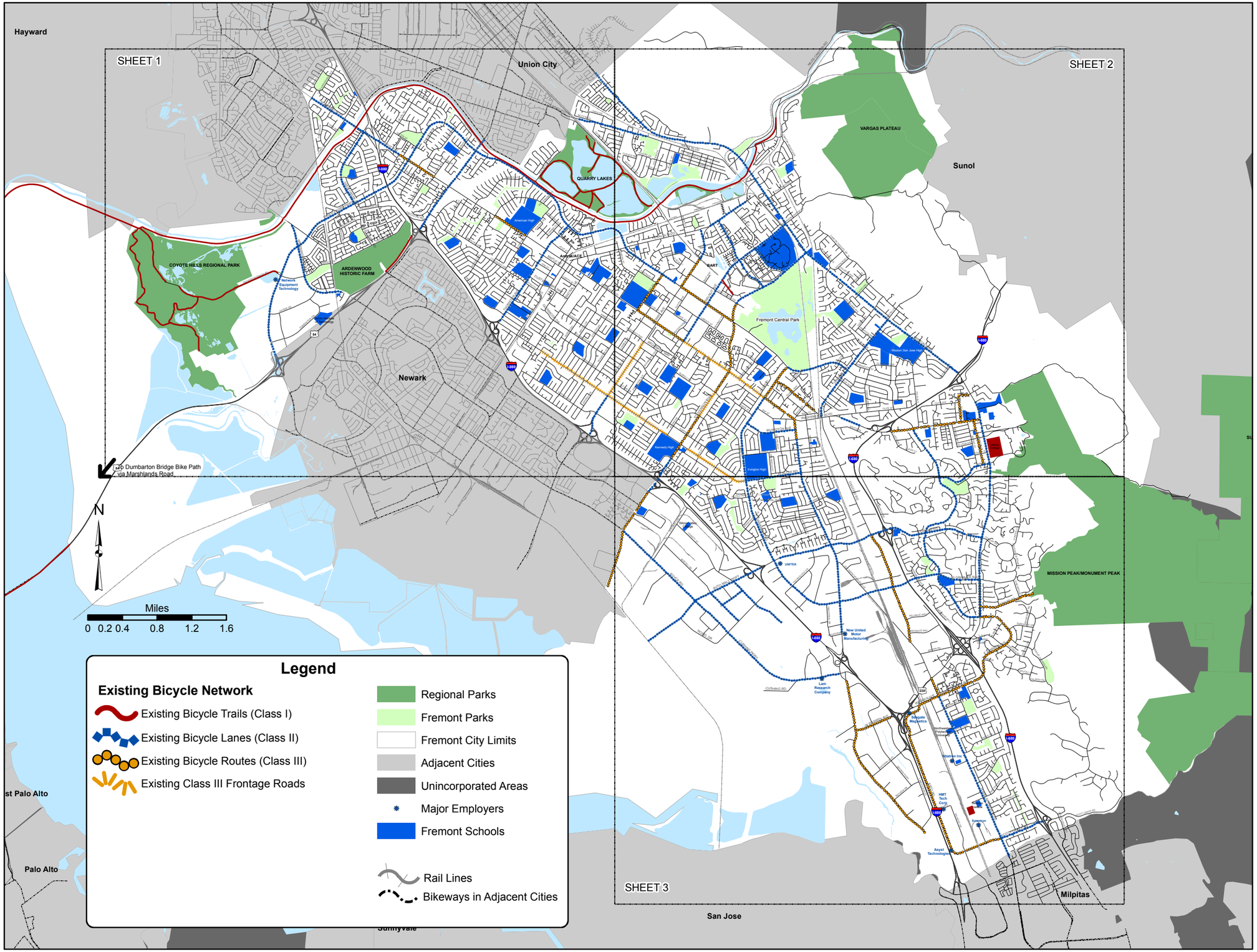

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Figure 2-2: Fremont Existing Bicycle Network - Sheet 1 of 3

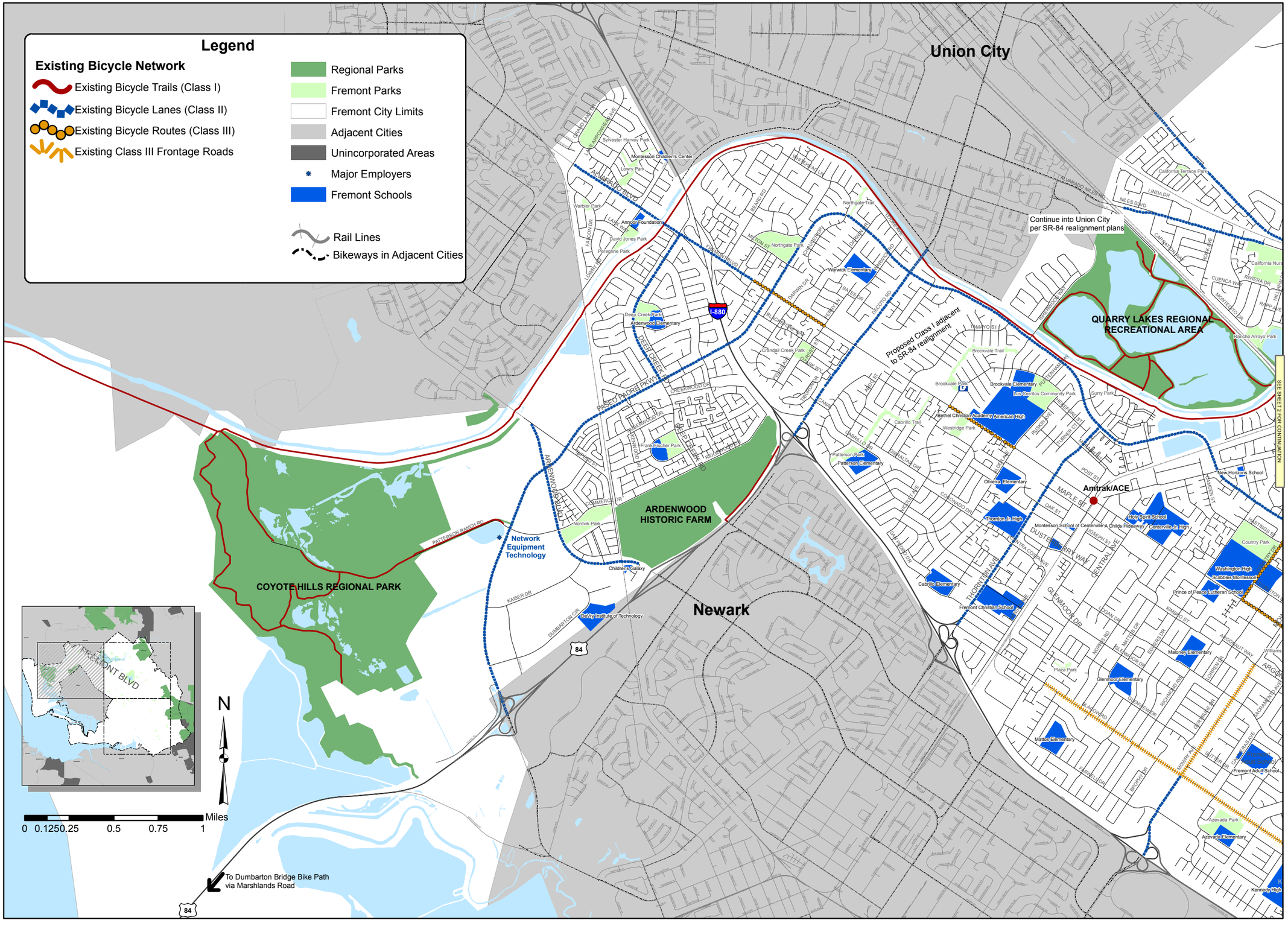

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Figure 2-3: Fremont Existing Bicycle Network - Sheet 2 of 3

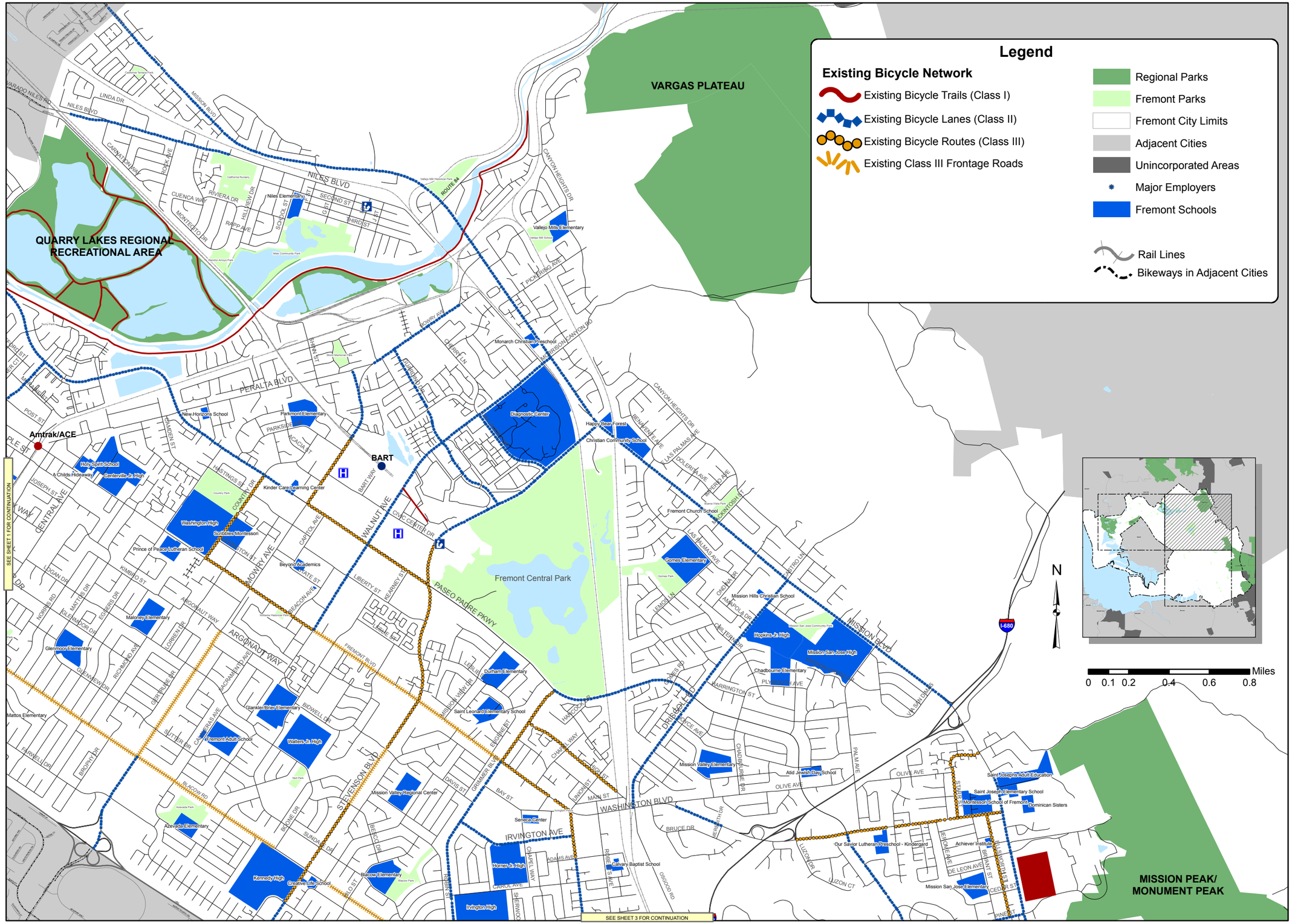

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Figure 2-4: Fremont Existing Bicycle Network - Sheet 3 of 3

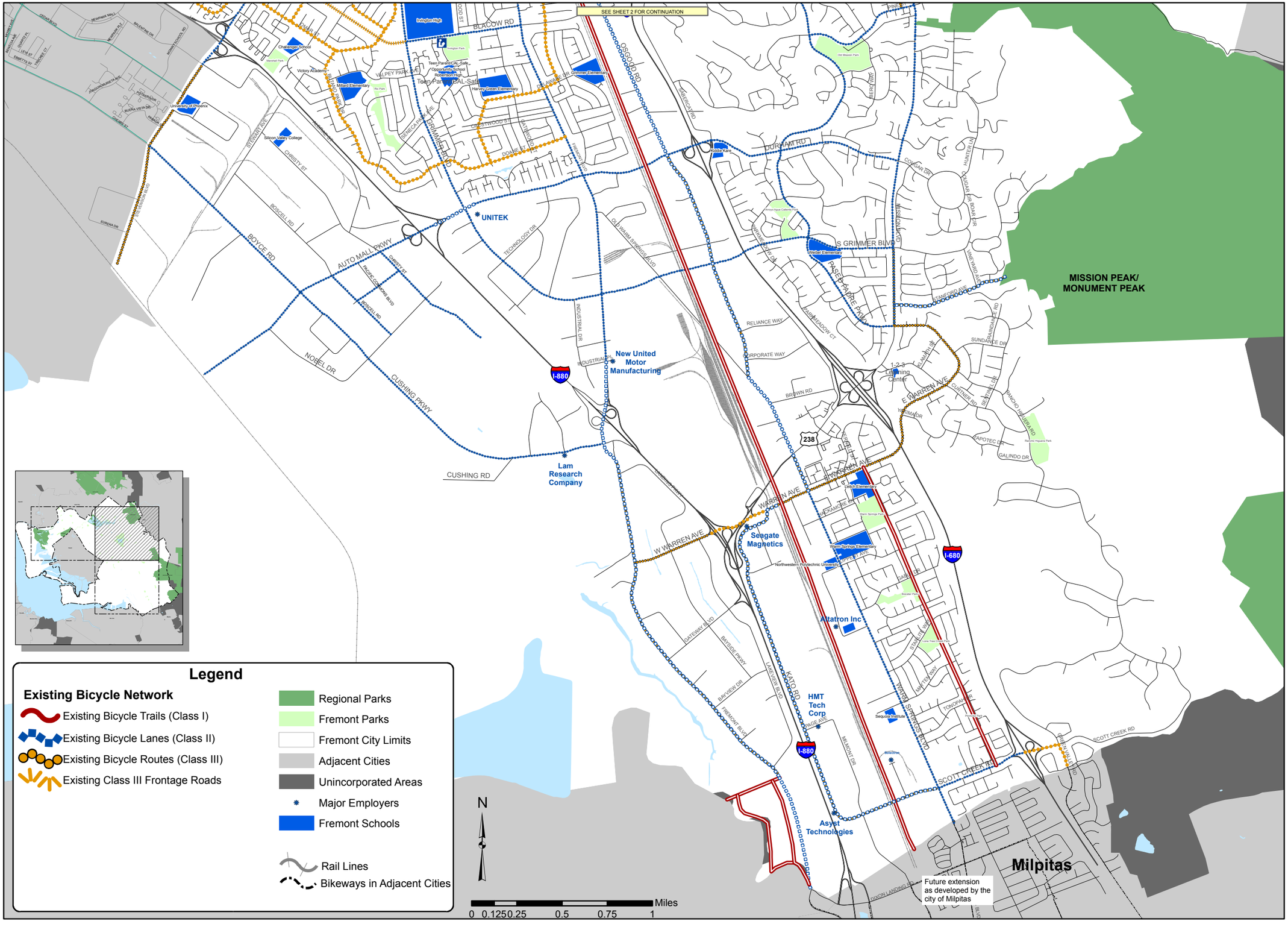

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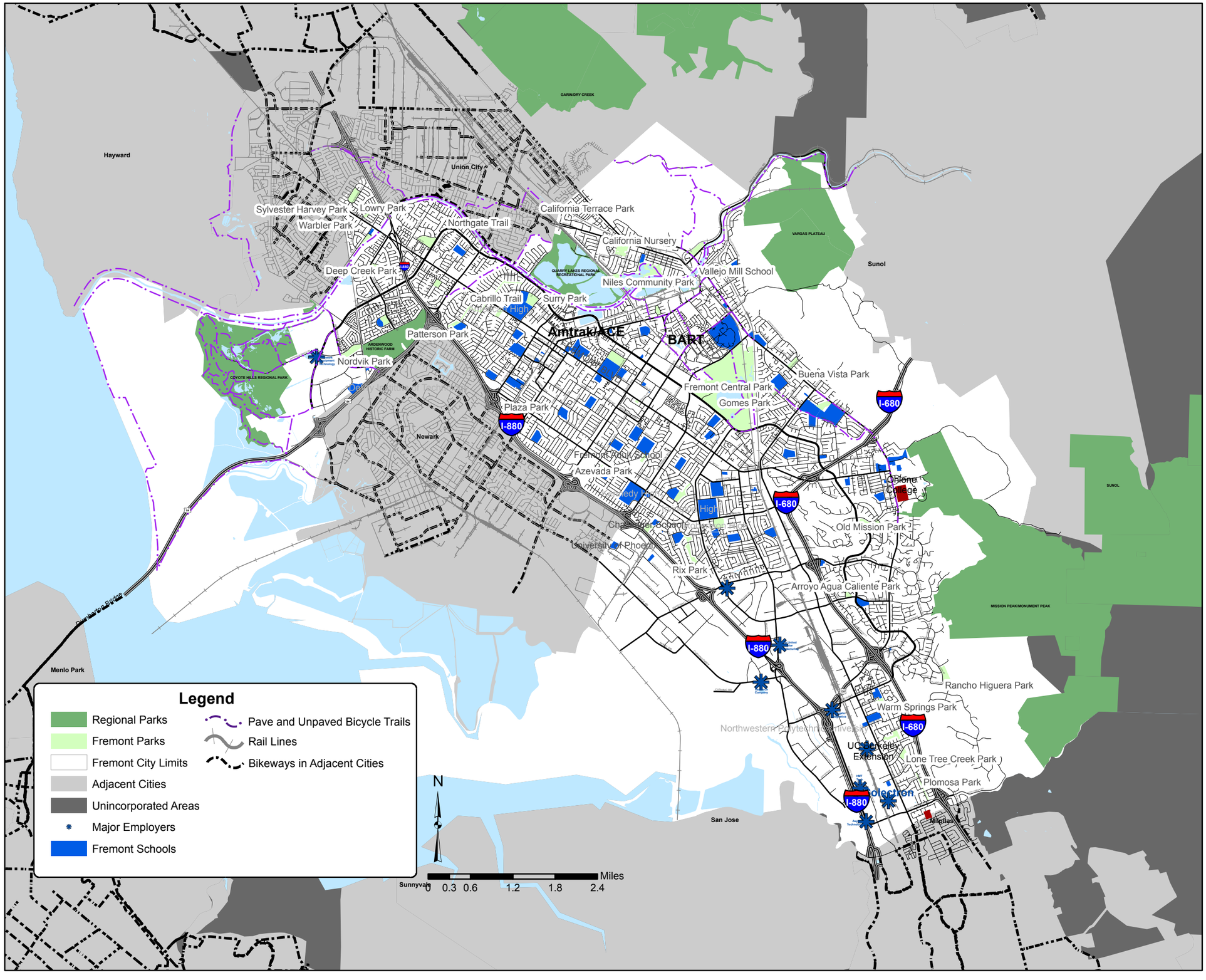
Figure 2-5: Paved and Unpaved Bicycle Trails, Fremont General Plan



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2.3.2. Existing Off-Street Bike Paths

Existing off-street Class I bike path segments within Fremont are listed in **Table 2-2**. Several of the city's major trails are described below.

2.3.2.1. San Francisco Bay Trail

The San Francisco Bay Trail is a planned recreational corridor that, when completed, will encircle the shoreline of San Francisco and San Pablo Bays with a continuous 400-mile network of bicycling and hiking trails. The Bay Trail will connect the shoreline of all nine Bay Area counties, link 47 cities, and cross the major toll bridges in the region. To date, approximately 240 miles of the alignment – over half the Bay Trail's ultimate length – have been completed. In Fremont, existing Bay Trail segments include the Newark Slough Trail and Shoreline Trail within the San Francisco Bay National Wildlife Refuge, Bayview Trail in Coyote Hills Regional Park, a segment of the Alameda Creek Trail between the bay shoreline and Ardenwood Boulevard, a trail segment parallel to South Fremont Boulevard west of I-880, and the bicycle path along the south side of the Dumbarton Bridge. Future Bay Trail segments are planned to connect south out of Fremont to Dixon Landing Road in Milpitas, as well as a segment along the railroad right of way extending through Newark toward Cushing Road in Fremont.

2.3.2.2. Alameda Creek Trail

The Alameda Creek Trail runs along the banks of Alameda Creek, beginning in the Niles District of Fremont at the mouth of Niles Canyon and running westward toward the San Francisco Bay for a total distance of twelve miles. Trails are provided on both sides of the creek -- the southern trail is located within Fremont, while the northern trail is located within the cities of Union City and Hayward. The south side is suggested for bicyclers, hikers, joggers, and runners, and the north side is designed as an equestrian trail. As noted above, a segment of the Alameda Creek Trail between the bay shore and Ardenwood Boulevard is a designated segment of the San Francisco Bay Trail.

2.3.2.3. Quarry Lakes Park Trails

Several Class I trail segments exist within Quarry Lakes Regional Recreation Area, including the 0.5-mile Niles Canyon Trail, the 1.3-mile Western Pacific Trail, the 0.3-mile Wood Duck Trail, and the 1.1-mile California trail. This network of bike paths loops around the lakes within the Quarry Lakes park, providing access to picnic areas and other park amenities.

2.3.2.4. Coyote Hills Park Trails

Coyote Hills Regional Park has an extensive network of paved and unpaved trails. The main paved trail segment is the Bay View Trail, a loop trail that begins and ends at the Visitors Center and connects to the Alameda Creek trail. The Bay View trail connects to a variety of unpaved gravel trails and footpaths, including the unpaved Bay Trail route that heads south into the Don Edward National Wildlife Refuge and crosses SR-84 at a pedestrian/bicycle bridge over the Dumbarton Toll Plaza.

Table 2-2
Index of Existing City of Fremont Class I (Paved) Bike Paths

Trail	From	To	Class	Length (Miles)
Alameda Creek Trail	Fremont Border	Old Canyon Road	I	11.03
California Trail	Old Creek Trail	Wood Duck Trail	I	1.13
Isla Los Rancheros	Western Pacific Trail	Trail End	I	0.25
Niles Canyon Trail	Alameda Creek Trail	Old Canyon Road	I	0.45
Old Creek Trail	California Trail	Western Pacific Trail	I	1.31
Patterson Ranch Road Trail	Coyote Hills Regional Park	Patterson Ranch Road	I	0.55
Bay View Trail	Visitors Center	Visitors Ctr (loop)	I	3.53
SF Bay Trail	Fremont Blvd (West Warren)	Fremont Blvd (south terminus)	I	1.5
Western Pacific Trail	Alameda Creek Trail	Quarry Lakes Access Road	I	1.34
Wood Duck Trail	Alameda Creek Trail	California Trail	I	0.31
TOTAL MILES				**21.4**

Table 2-3
Index of Existing City of Fremont Class II Bike Lanes

Street	From	To	Class	Length (Miles)
Alvarado Boulevard	N. City Limits	I-880 (N)	II	0.87
Ardenwood Boulevard	Fremont city limit	SR-84	II	1.16
Auto Mall Parkway	I-680	I-880	II	1.62
Auto Mall Parkway	Boyce Road	I-880	II	0.71
Blacow Road	Grimmer Boulevard	Fremont Boulevard	II	0.64
Boyce Road	Auto Mall Parkway	Stevenson Boulevard	II	1.16
Decoto Road	I-880	Fremont Border	II	1.29
Deep Creek Road	Paseo Padre Parkway	Alvarado Boulevard	II	0.93
Driscoll Road	Mission Boulevard	Washington Boulevard	II	1.39
Durham Road	Mission Boulevard	I-680	II	1.17
Fremont Boulevard	Irvington Avenue	I-880 (S)	II	2.45
Fremont Boulevard	I-880	Beard (NB)/Enea (SB)	II	0.34
Gallaudet Drive	Walnut Avenue	Stevenson Boulevard	II	0.45
Grimmer Boulevard	Auto Mall Parkway	Fremont Boulevard	II	2.02
Guardino Drive	Mowry Avenue	Stevenson Boulevard	II	0.95
Irvington Avenue	Grimmer Boulevard	Fremont Boulevard	II	0.59
Mission Boulevard	Fremont Border	SPRR (Niles)	II	1.94
Mission Boulevard	Pickering Avenue	I-680	II	3.00

Street	From	To	Class	Length (Miles)
Mission Boulevard	Telles Lane	Paseo Padre Parkway	II	2.51
Mowry Avenue	I-880	Blacow Road	II	0.52
Mowry Avenue	Peralta Boulevard	Overacker Avenue	II	0.53
Paseo Padre Parkway	Dumbarton Circle	Mowry Avenue	II	7.0
Paseo Padre Parkway	Washington Boulevard	Mission Boulevard	II	2.87
Paseo Padre Parkway	Grimmer Boulevard	Driscoll Road	II	0.74
Pine Street	Paseo Padre Parkway	Mission Boulevard	II	0.67
Scott Creek Road	Warm Springs Boulevard	I-680	II	0.52
South Grimmer Boulevard	Mission Boulevard	Auto Mall Parkway	II	2.66
Stevenson Boulevard	Gallaudet Drive	Civic Center Drive	II	0.66
Stevenson Boulevard	Albrae Street	Omar Street	II	0.44
Thornton Avenue	Route 84	Dumbarton Circle	II	0.29
Thornton Avenue	Paseo Padre Parkway	Blacow Road	II	1.38
Tupelo Street	Union City Boulevard	Ardenwood Boulevard	II	0.05
Walnut Avenue	Mission Boulevard	Fremont Blvd.	II	1.81
Warm Springs Boulevard	Warren Avenue	South City Limits	II	2.01
TOTAL MILES				**47.63**

Source: City of Fremont, Bicycle and Pedestrian Plan Map, December 2002; field checked in 2004

Table 2-4
Index of Existing City of Fremont Class III Bike Routes

Street	From	To	Class	Length (Miles)
Country Drive	Fremont Boulevard	Paseo Padre Parkway	III	0.51
East Warren Avenue	Curtner Road	Warm Springs Boulevard	III	1.05
Ellsworth Street	Washington Boulevard	Pine Street	III	0.52
Fremont Boulevard	I-880	Ferry Lane	III	0.57
Fremont Boulevard	Nicolet Avenue	Alder Avenue	III	0.43
Fremont Boulevard	Country Drive	Walnut Avenue	III	0.64
Fremont Boulevard	Grimmer Boulevard	Irvington Avenue	III	0.59
Fremont Boulevard	Cushing Parkway	End	III	2.08
Grimmer Boulevard	Paseo Padre Parkway	Fremont Boulevard	III	0.44
High Street	Grimmer Boulevard	SPRR	III	0.55
Kato Road	Warren Avenue	Warm Springs Boulevard	III	2.47

Street	From	To	Class	Length (Miles)
Mission Boulevard	South Grimmer Boulevard	Paseo Padre Parkway	III	0.43
Mowry Avenue	Paseo Padre Parkway	Peralta Boulevard	III	0.75
Niles Boulevard	Fremont Border	Nursery Avenue	II	0.92
Osgood Road	South Grimmer Boulevard	Auto Mall Parkway	III	0.66
Paseo Padre Parkway	Mowry Avenue	Stevenson Boulevard	III	0.72
Paseo Padre Parkway	Mission Boulevard	Curtner Road	III	0.61
Stanford Avenue	Mission Boulevard	End	III	0.65
Starr Street	Washington Boulevard	Mission Boulevard	III	0.44
Stevenson Boulevard	Civic Center Drive	Davis Street	III	1.10
Stevenson Boulevard	Besco Drive	Omar Street	III	0.59
Stevenson Boulevard	Albrae Street	End	III	1.21
Warm Springs Boulevard	Warren Avenue	Mission Boulevard	III	0.22
Warm Springs Boulevard	South Grimmer Boulevard	Warm Springs Court	III	0.67
Warren Avenue	Warm Springs Boulevard	Kato Road	III	0.25
Washington Boulevard	I-680	Mission Boulevard	III	0.99
TOTAL MILES				**20.06**

Source: City of Fremont, Bicycle and Pedestrian Plan Map, December 2002; field checked in 2004

Table 2-5
Index of Existing City of Fremont Class III Frontage Road Bike Routes

Street	From	To	Class	Length (Miles)
Blacow Road	Dowling Avenue	Boone Drive	III	1.75
Blacow Road	Porter Street	Grimmer Boulevard	III	0.77
Fremont Boulevard	Walnut Avenue	Grimmer Boulevard	III	1.14
Mowry Avenue	Blacow Road	Argonaut Way	III	0.75
Stevenson Boulevard	Davis Street	Besco Drive	III	0.33
TOTAL MILES				**4.74**

Source: City of Fremont, Bicycle and Pedestrian Plan Map, December 2002; field checked in 2004

2.3.3. Existing On-Street Bike Lanes and Routes

Fremont has a partially completed bikeway network comprised of a mix of bike lanes and routes, as shown in **Figure 2-1**. Key Class II Bike Lane segments include Paseo Padre Parkway, Grimmer Boulevard, Peralta Boulevard, Mission Boulevard,

and Fremont Boulevard (south). Most of these Class II segments are not continuous the length of the roadway, with gaps existing in a number of places, locations where the lanes drop approaching intersections or undercrossings, or other discontinuities or narrowing of the bike lane facility. Addressing these gaps or discontinuous segments is a high priority of this Bicycle Master Plan.

On some arterial roadways where there is not sufficient width to stripe bike lanes, Fremont has designated Class III Bike Routes. Arterial Class III routes include segments of Stevenson Boulevard, Fremont Boulevard, Osgood Road, Washington Boulevard, and Warren Avenue.

Some of Fremont's arterial roadways have parallel residential frontage roads located on either side of the arterial. Several frontage road segments have been designated as Class III Bike Routes (see Table 2-5, above). Roadways with Class III Frontage Roads include Fremont Boulevard, Stevenson Boulevard, and Mowry Avenue. Due to factors such as discontinuities between frontage road segments, numerous cross-streets, difficult crossings, and difficult access from the main arterial road, these frontage roads are considered unsatisfactory bicycle routes by many local cyclists.

Fremont currently has no Class III bike routes designated on neighborhood or residential streets.

2.3.4. Bikeway Signage

Implementing a well-designed, attractive, and functional system of network signage greatly enhances bikeway facilities by promoting their presence to both potential and existing users. Currently, Fremont uses standard Caltrans bikeway signage, although many facilities lack signage entirely. The city is currently seeking funding to inventory and demarcate the intersections where bicycle loops detectors and vehicles detectors are installed.

In terms of wayfinding, there is some directional signage provided along bikeways in Fremont. However, most local street connections and continuous bikeway routes are not identified. There is also some directional signage for major destinations, such as the BART station, however, the lack of good directional signage is considered by some to be a constraint to bicycling in Fremont. Particularly for Class III bike routes, destination signage helps to clarify routes, particularly in locations where two routes cross.

2.3.5. Bicycle Detector Loops

Bicycle detector loops (BDLs) are sensors that activate traffic signals when a bicyclist positions his/herself where a loop detector is installed, in bicycle or auto travel lanes at signalized intersections. There are currently BDLs installed at less than ten intersections throughout the City of Fremont. The City of Fremont maintains one hundred fifty nine signalized intersections. All of the city's signalized locations have vehicle detectors at all approaches. Some of these loops, Type D and Type C, are able to detect bicycles. At one point the City of Fremont marked bicycle detector loops with bicycle striping. Due to maintenance costs, though,

Fremont has ceased marking the location of these detectors. The city has received funding to restripe and maintain these intersections.

While BDLs facilitate faster and more convenient bicycle trips, if they aren't calibrated properly, or stop functioning, they can frustrate cyclists waiting for signals to change, unaware that the BDL is not working. The City of Fremont should develop a regular maintenance program to ensure the intended benefits of BDLs for bicycle travel. In addition, all BDL locations should be marked by a pavement stencil. The stencils wear off and should be repainted when needed. Chapter 5 provides recommendations on the structure of a BDL program.

2.3.6. Bicycle Parking

Bicycle parking is an important component in planning bicycle facilities and encouraging people to use their bicycles for everyday transportation. Bicycles are one of the top stolen items in most communities, with components often being stolen even when the bicycle frame is securely locked to a rack. Because today's bicycles are often high-cost and valuable items, many people will not use a bicycle unless they are sure that there is secure parking available at their destinations. In California, bicycle parking facilities are classified as either Class I or Class II facilities. Bear in mind that many cyclists may use (and even prefer) less "formal" bicycle parking methods, such as simply bringing their bicycle inside their building and storing it in their office. Cyclists with higher-end bicycles (perhaps costing several thousand dollars) are often reluctant to let a bicycle out of their sight at all, and for them the ability to bring a bicycle inside a building and is a paramount concern if they are considering whether or not to bicycle to work or to a store.

2.3.6.1. Class I Parking – Long Term

Class I bicycle parking facilities accommodate bicycles of employees, students, residents, and others expected to park more than two hours. This parking is provided in a secure, weather-protected manner and location. Class I bicycle parking includes a bicycle locker or a secure area like a 'bike corral' that may be accessed only by bicyclists. The new "day locker" (bike lid, eLocker, etc.) is a new bicycle locker concept that has gained recent popularity because it requires minimal program administration. These lockers allow for multiple users in the same day, therefore allowing these lockers to function similar to racks.

2.3.6.2. Class II Parking – Short-Term

Class II bicycle parking facilities are best used to accommodate bicycles of visitors, customers, messengers, and others expected to depart within two hours. This parking is provided by bicycle racks, which provide support for the bicycle but do not have locking mechanisms. Racks are relatively low-cost devices that typically hold between two and eight bicycles, allow bicyclists to securely lock their frames and wheels, are secured to the ground, and are located in highly visible areas. Racks should not be designed to damage the wheels by causing them to bend. Bike racks should be located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, post offices, churches, and civic centers, or anywhere personal or professional business takes place.

2.3.6.3. Fremont Bicycle Parking Facilities

Inverted-U style bicycle racks are installed at various locations in downtown Fremont. In addition to racks at schools, universities, and city facilities throughout Fremont, there are currently 121 inverted u racks at the Fremont BART station. The Fremont ACE Amtrak station near Fremont Boulevard has 6 inverted u racks.

There are no bicycle parking requirements in the Fremont Municipal Code, therefore it is up to the individual businesses to provide racks for their employees and/or customers. Although there is no mandatory policy regarding the installation of bicycle parking racks, the City of Fremont's recommendations for the installation of bicycle racks are consistent with the Association of Pedestrian and Bicycle Professionals (APBP) *Bicycle Parking Guidelines*. Most public schools in Fremont provide bicycle parking facilities as well.

Virtually no major private employers in Fremont provide bicycle parking or shower facilities for use by bicyclists and other non-motorized commuters. **Table 2-6** contains a list of Fremont's largest employers, and a summary of whether they provide bicycle racks and showers for their employees.

Table 2-6
Provision of Bicycle Racks and Showers at Major Employers

Employer Name	Racks?	Showers?	Number of Employees
New United Motor Manufacturing	No	No	4,603
LAM Research Group	8	No	2,077
Seagate Magnetics	No	No	1,210
HMT Technology Corporation	No	No	1,483
Altatron Inc.	No	No	718
Sysco Food Services	No	No	1,103
Solectron Corportation	No	No	871
Washington Hospital	Yes	Yes	1,251
City of Fremont	100	Yes	1,121

Sources: The Community Profile for the City of Fremont found on the Economic Development Alliance for Business webpage: www.edab.org/index.html?BODY=cities/fremont.html
Rack and Shower information based on Alta Planning + Design telephone survey, September 2004

2.3.7. Bicycle Support Facilities

For the purposes of this Plan, bicycle support facilities refer to end-of-trip facilities that would encourage bicyclists to commute to work or other activities that require one to "clean up" after a ride. Typically, these amenities include showers and clothing locker facilities and can be located at places of employment. Such facilities are most often provided by building owners or tenants for use by those who work in the building. Although health clubs provide showers and clothing lockers, they are only available to their members.

Bicycle shops are important for bicyclists making trips between urban areas in the event they suffer an equipment failure and need repair parts or service. Parks and rest stops offer cyclists water, a place to sit or rest, and restroom facilities. Transit transfer stations extend the range cyclists can commute. Locations to shower and change clothes make commuting a more viable alternative.

2.4. BICYCLE FACILITY MAINTENANCE

Currently, the maintenance of Fremont's bikeways facilities consists of restriping, replacement of missing or damaged signs, trimming of plants, pavement repair, traffic signal repair of bicycle and pedestrian devices. Other maintenance activities are conducted on an as-needed basis by the City of Fremont.

2.5. PAST BICYCLE PROGRAM EXPENDITURES

The City of Fremont's past bicycle program expenditures totaled just over 10% of the total expenditure spent on roadway maintenance and improvements. **Table 2-7** lists Fremont's past and future bicycle program funds and expenditures. Included is funding resulting from ACTIA Measure B Bikes/Peds. ACTIA distributes these funds to cities within Alameda County for the explicit purpose of planning and constructing bicycle and pedestrian projects. Also included in the total expenditure figures are Transportation Development Act (TDA) Article 3 funds, BTA and Transportation Fund for Clean Air (TFCA) funds.

Table 2-7
Past and Predicted Bicycle Program Expenditures

Project Name	Year	Cost
Bike & Pedestrian Plan	2003-2004	$35,000
Bike & Pedestrian Projects	2003-2004	$200,000
Fremont Boulevard Bike Lane, Mowry to Beard	2004-2005	$200,000
Central Park/Gomes Park UPRR Overcrossing	2007-2008	$390,000
Paseo Padre Bike Lanes	2003-2005	$110,000
Bike Master Plan	2004-2005	$70,000
Bike & Pedestrian Projects	2004-2005	$250,000
Traffic Signal Bike Detection	2005-2006	$129,000
Bike & Pedestrian Projects	2005-2006	$310,000
Fremont Blvd. Shoulder Widening for Bike Lane	2005-2007	$180,000
Citywide Bicycle Signage and Striping Project	2006-2007	$121,000
Bike & Pedestrian Projects	2006-2007	$225,000
Bikes & Pedestrian Projects	2007-2008	$275,000
Total	-	*$2,015,000*

Source: City of Fremont 2003/04-2007/08 Capital Improvement Program Fund Source and Use Report.

2.6. ENCOURAGEMENT AND EDUCATION PROGRAMS

2.6.1. Educational Programs

The City of Fremont offers traffic safety and education through the Development and Environmental Services Transportation Engineering. Their mission is to provide traffic safety workshops, school rodeo events, and community traffic safety rodeo events. Safe Moves hosts up to four community bike rodeo events per year. A bike rodeo is a public event combining group activities with education and entertainment aimed at educating parents and students about good riding behaviors. Children use this realistic training environment to practice bicycle handling skills, pedestrian safety, and their ability to recognize and react to traffic hazards.

Safe Moves educational programs are geared towards increasing the awareness of bicycle and pedestrian safety among elementary school children and parents in the Fremont Unified School District. The instructors discuss bicycle, pedestrian and general traffic safety at school workshops during school hours. They conduct several school workshops a year at the elementary schools in Fremont. Some of the issues covered during these workshops include:

- Safe places to ride
- Unsafe places to ride
- Traffic signs and signals
- Rights and responsibilities of bicyclists
- Helmet use (proper fit and maintenance)
- Choosing the right size bike and model
- Proper bicycling clothing recognition and avoidance of common bicycle accidents
- Bicycle maintenance and repair
- Rules, regulations and ordinances that govern bicyclists
- Suggested routes to and from school
- Locations and uses of bicycle facilities
- School bicycle policies

The City of Fremont publishes bicycle and pedestrian safety tips both in print and on their website. These tips outline behaviors that will increase safety for bicyclists and describe not only compliance with applicable traffic laws but also impart insights unique to cycling. Pedestrian safety tips inform readers about how the technology of traffic signals work and how observing those signals can increase pedestrian safety.

2.6.2. Enforcement

The City of Fremont actively enforces bicycle and motorist traffic violations through its traffic unit. Currently there are fifteen sworn officers in the traffic unit and two community service officers.

2.6.2.1. Bicycle and Pedestrian School Safety Fund

The City has implemented a double fine zone in school zones in order to create funds for bicycle and pedestrian school safety project. The request was approved by Council July 2003.

2.6.2.2. Adult Crossing Guards

The city of Fremont's Police Department contracts with ACMS, a management firm, to employ 24 professionally-trained crossing guards to work at 17 of Fremont's 32 schools while school is in session. The necessity for a crossing guard is determined by a specific set of warrants established by the City. These warrants address traffic volume, number of students crossing, and availability of alternate routes and nearby signalized intersections. Although crossing guards are focused on pedestrian crossings, they are important to mention here in the context of children bicycling to school, particularly younger children who may be riding on sidewalks and crossing in crosswalks (vs. vehicular cycling turning movements).

2.6.2.3. Junior Safety Patrol

The Junior Safety Patrol is the result of a partnership between the Police Department, Transportation Engineering, the Fremont Unified School District, and the California Sate Automobile Association (CSAA). Each school provides either a staff member or parent volunteer who organizes and supervises the Patrol. Fifth and sixth grade students are selected for the Patrol based upon merit, attendance, and good citizenship. Members of the Patrol take a post at school crossings and work to ensure the safety of fellow students.

The police department provides training, safety lectures, and an ongoing enforcement effort in areas surrounding the schools. School staff and/or parent volunteers provide direct supervision and support, while equipment for the Safety Patrol is provided by CSAA, at either a substantially reduced cost, or no cost at all.

2.6.2.4. Student Valet Pick-up and Drop-Off

Currently, the Fremont Police Department and Transportation Engineering are implementing a valet pick-up and drop-off program at grade schools to address congestion during peak school hours.

2.7. MULTI-MODAL CONNECTIONS

Multi-modal refers to the use of two or more modes of transportation in a single trip (i.e., bicycling and riding the bus or train). Improving the bicycle-transit link is an important part of making bicycling a part of daily life in Fremont. Linking bicycles with mass transit, especially BART commuter trains, buses, and shuttle services, overcomes such barriers as lengthy trips, personal security concerns, and riding at night or in poor weather. The transit agencies serving Fremont – AC

Transit, BART, VTA, Amtrak, and ACE – provide connections to over ten other public transit agencies that serve much of the Bay Area.

Making the multi-modal connection consists of two key elements: providing bicycle parking facilities at bus stops and bike racks on trains and buses. Two other components include improving bikeways and roadways that link with transit facilities and stops, and encouraging the use of multi-modal programs. Bicycling to transit, in lieu of driving, benefits the community by reducing air pollution, reducing the demand for parking, reducing energy consumption, and reducing traffic congestion with relatively low investment costs.

Existing multi-modal connections in Fremont are especially important when considering regional trip opportunities. A large number of Fremont residents work in San Francisco and Silicon Valley, which are served by BART and ACE trains, and VTA bus service. Ensuring adequate bicycle access on these connections will extend the travel range of individuals at both ends of the trip.

2.7.1. AC Transit

The Alameda-Contra Costa Transit District (AC Transit) District 2 is comprised of Fremont and Newark. Together they have thirteen different bus lines with a route network oriented to the Union City and Fremont BART stations. AC Transit has a shuttle that serves as an express commuter bus from Fremont to the Stanford Industrial Park in Palo Alto. Service to and from the BART station is in high demand because it serves as one of the few central locations in Fremont.

2.7.2. VTA

Destinations within Santa Clara County are served by Santa Clara Valley Transportation Authority (VTA) bus service. VTA bus routes serve several destinations within Santa Clara County from Fremont, including Milpitas, San Jose, Santa Clara, and Mountain View. All VTA routes into Fremont terminate at the Fremont BART station, with stops along Mission Boulevard. All VTA buses are equipped with exterior bike racks that can accommodate up to two bicycles. When the rack is filled, up to two bicycles will be allowed inside the bus subject to the driver's discretion and when passenger loads are light.

2.7.3. Dumbarton Express Bus

This weekday express bus service across the Dumbarton Bridge connects the Union City BART station and the Palo Alto Caltrain station, with a stop in Fremont at the Ardenwood Park and Ride. Dumbarton Express service is provided through a consortium of AC Transit, BART, Union City Transit and Santa Clara Valley Transportation Authority. The buses on the Dumbarton Express are equipped with bike racks which can accommodate up to two bicycles; however bicycles are not allowed inside the bus on the Dumbarton Express.

2.7.4. BART

BART is an intra-regional commuter rail system that connects Fremont with Alameda County, San Francisco, and Contra Costa County. The Fremont BART station is located adjacent to Fremont's Central Business District between Mowry and Walnut Avenues. (Two new stations are planned within Fremont, at the Irvington and Warm Springs Districts.) The primary destinations for Fremont BART riders are Alameda County and San Francisco. Only a small number of passengers are destined for Contra Costa County.

Fremont is served by BART's Daly City-Fremont line and the Richmond-Fremont Direct Lines, with connections to the Pittsburg/Bay Point and Dublin/Pleasanton lines. Bicycles are permitted at all times on the Richmond Line, but are not permitted to exit at Oakland 12th or 19th Street stations during commute hours. On the Daly City Line, bicycles are not permitted on BART trains heading into San Francisco in the peak commute direction (westbound a.m., eastbound p.m.), but are otherwise allowed on all trains.

2.7.5. AMTRAK and ACE Trains

Amtrak California's Capitol Corridor trains run between San Jose and Auburn, with stops including Fremont, Hayward, Oakland, Richmond, and Sacramento. Capitol Corridor trains and buses stop in Fremont at the Centerville station, located at the intersection of Peralta and Fremont Boulevards. Bicycles are allowed on all Capitol Corridor trains; each train car has a rack with the capacity to store three bicycles, and additional bicycles are allowed on board at the discretion of the conductor.

The Centerville train station is also served by Altamont Commute Express (ACE) trains that run between Stockton and San Jose. ACE stops include Tracy, Livermore, Pleasanton, Fremont, and Santa Clara. Bicycles are allowed on all ACE trains; space varies by train, and spaces are available on a first-come, first-served basis.